

WASHINGTON STATE DEPARTMENT OF COMMERCE

Economic and Revenue Impacts of Potential Flooding in the Green River Valley

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Department of Commerce
Innovation is in our nature.

Briefing Outline

- Economic Value of Business Activity:
 - What will be the economic impact?
 - What will be the revenue impact?
- Business impacts
 - Business connection and hub activity
 - FEMA floodplain management
 - Small business hardship
 - “Potential” risk

Computer Simulated Flood Scenario

- **This analysis is based on an Army Corps of Engineers (USACE) simulated flood scenario**
 - 25,000 cubic feet per second water flow measured at the Auburn gauge.
 - USACE has not assigned a probability to this scenario.
 - Assumes all levies hold (so not worst-case).
 - Does not take into account downstream mitigation efforts by firms, cities and King County (so not best-case either).

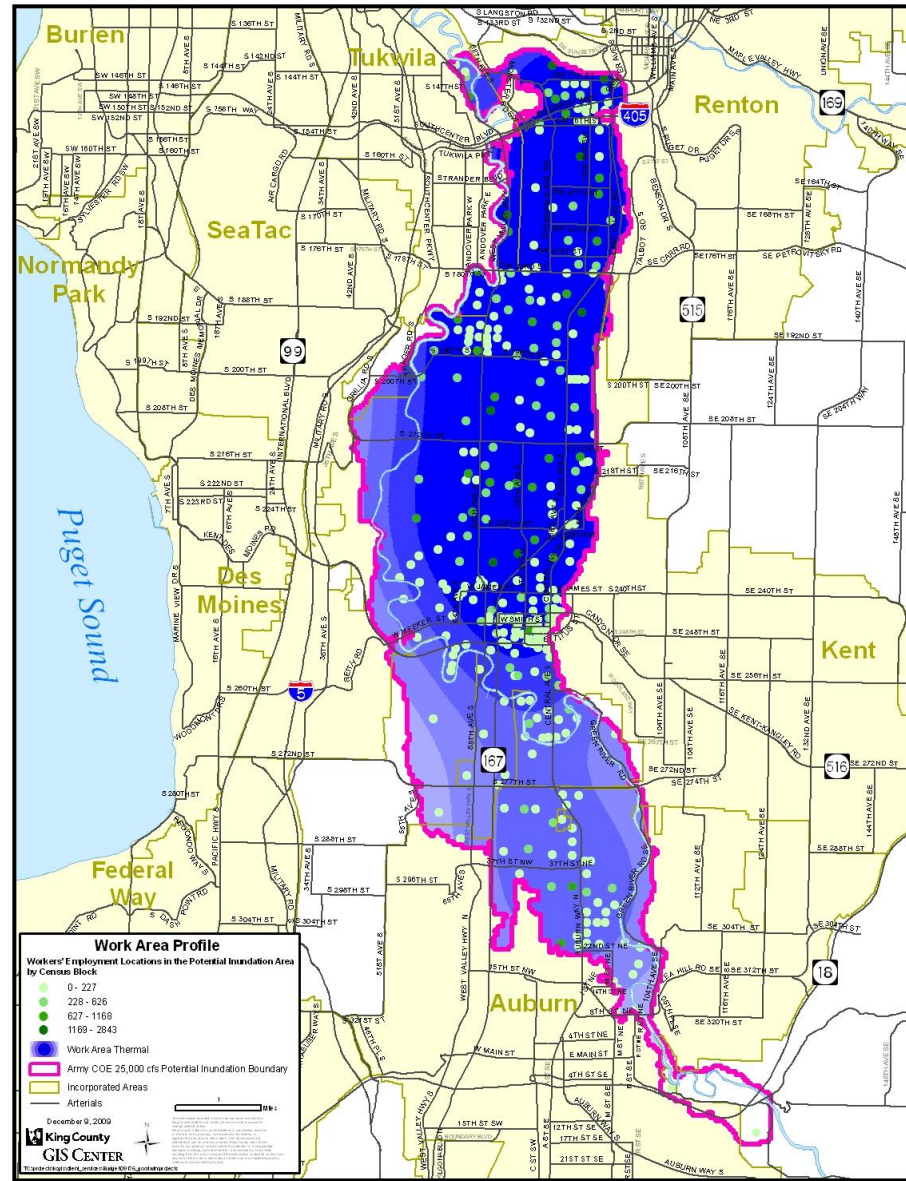
Source

http://www.nws.usace.army.mil/PublicMenu/Doc_list.cfm?siteName=HH&pageName=Green_River_Maps



Methodology

- GIS map using exact coordinates
- Data from several agencies overlaid on map
- The contours and dots show the concentration of jobs



Economic Impact – Employment*

- **95,000 – 100,000 jobs in inundation area – 7.8%-8.2% of all jobs in King County**
 - Covered employment: 86,382 jobs
 - Uncovered employment is another 10-15%.
 - Some employers excluded from “covered” data to protect confidentiality

*Sources: WA Dept. of Revenue (DOR), WA Employment Security Dept. (ESD), and Puget Sound Research Council (PSRC)



Economic Impact – Output and Payroll*

- **\$107 million per day in total economic output – 12% of Washington Gross State Product**
 - \$63 million per day in output value within the area
 - Output multiplier is 1.7. (This means an additional \$0.70 of every dollar of output is created in the overall economy.)
 - \$16 million per day in covered payroll

*Sources: WA State Input-Output Model, Puget Sound Research Council, WA Employment Security Dept, US Bureau of Economic Analysis

Economic Impact – Commuting Patterns*

- **Over 90,000 commuters would be disrupted**
 - 76,250 workers live outside the inundation area and commute to jobs inside it every work day
 - 10,870 workers live inside the inundation area and commute to jobs outside it every work day.
 - These figures do not count those who live outside and commute *through* the inundation area to jobs outside

*Source: Census Bureau

Revenue Impact – Sales Tax*

- **\$1.2 million per day sales tax revenue**
 - \$827,333 per day to the state
 - \$387,862 per day to local jurisdictions

*Source: DOR



Revenue Impact – Property Tax*

- **\$112 million annual property tax collected on \$10 billion in taxable value**
- \$12 billion assessed value of all property in the inundation area.

*Source: DOR



Revenue Impact – Business & Occupation

- **\$98-103 million annual Business and Occupation tax paid in inundation area**
- State wide average B&O per worker - \$1030

Source: DOR and ESD (estimated using averages)

A 10 Day Flood Event

Economic and Revenue Impacts

- Over 100,000 workers temporarily unemployed within the inundation area, and another 138,000 workers impacted throughout the state (job multiplier is 2.38) – **6% of state workforce, 13% of the Puget Sound workforce.**
- \$1.1 billion in lost output to the economy, including the multiplier effects
- \$12.1 million in lost sales tax revenue - \$8.4 million lost to state government
- Potential loss of Business & Occupation tax
- No immediate impact on property taxes

Sources: WA State Input-Output Model, WA DOR, US
Bureau of Economic Analysis



Costs of a Flood Event

- FEMA 2009 study: 17,600 cfs event with levee failures would cause **\$3.7 billion** building-related damage in Green River Valley
- Weakening of Howard Hanson Dam abutment event January 2009
 - King County is spending **\$29 million** for emergency protective measures.
 - EMD awarded **\$1.8 million** in IHP (individual assistance)
- Chehalis-Centralia flood event December 2007 - **\$70 million** infrastructure repair.

EMD = WA Emergency Management Division



Longer Term Impacts of a Flood Event

- **If a permanent solution is in sight**
 - Partial recovery of sales tax from rebuilding and repair
 - Some lost wages and output will be made up with overtime
- **If no permanent solution is in sight**
 - No new construction (possible removal of structures)
 - “Lease up and out” exodus from valley
 - Property tax burden shifted to other parts of the County
 - Permanent loss of sales and B&O tax revenue
 - Loss of jobs to other states and other countries

Southend Industrial/Distribution Real Estate

- **110 mil. sq. ft. total market ***
- 2009 Year end vacancy rate: 6.9%
- Vacant space: 7.6 mil. sq. ft.
- Industrial rates : \$5.82 (down \$.40 from 2008)
- 2009 YTD Net Absorbency: -3,500,000 sq. ft.
- Assessor's Office: vacancy up, income down

*Includes: 4.3 mil. sq. ft. in Seatac, Burien, Vashon Island and Federal Way

Kent Valley 2nd largest industrial park on the West Coast; 5th largest in nation

- 3rd largest distribution/warehouse area after NY/NJ and LA
- Ports of Seattle and Tacoma 3rd largest container hub in nation
- Agriculture product shipping via rail to Ports through Kent Valley exceed 122,000 * cars annually. (Corn, soybeans, wheat from Midwest; grain, peas and lentils Eastern Washington)
- Significant inbound fresh food through Ports

*each car equals 91 metric tons

Agriculture—A Cornerstone of Washington's Economy

County Rankings and Market Value of Crop and Livestock Products

Key economic facts on Washington Agriculture:

Washington's farmers and ranchers produced crops and livestock valued at \$7.7 billion in 2008.

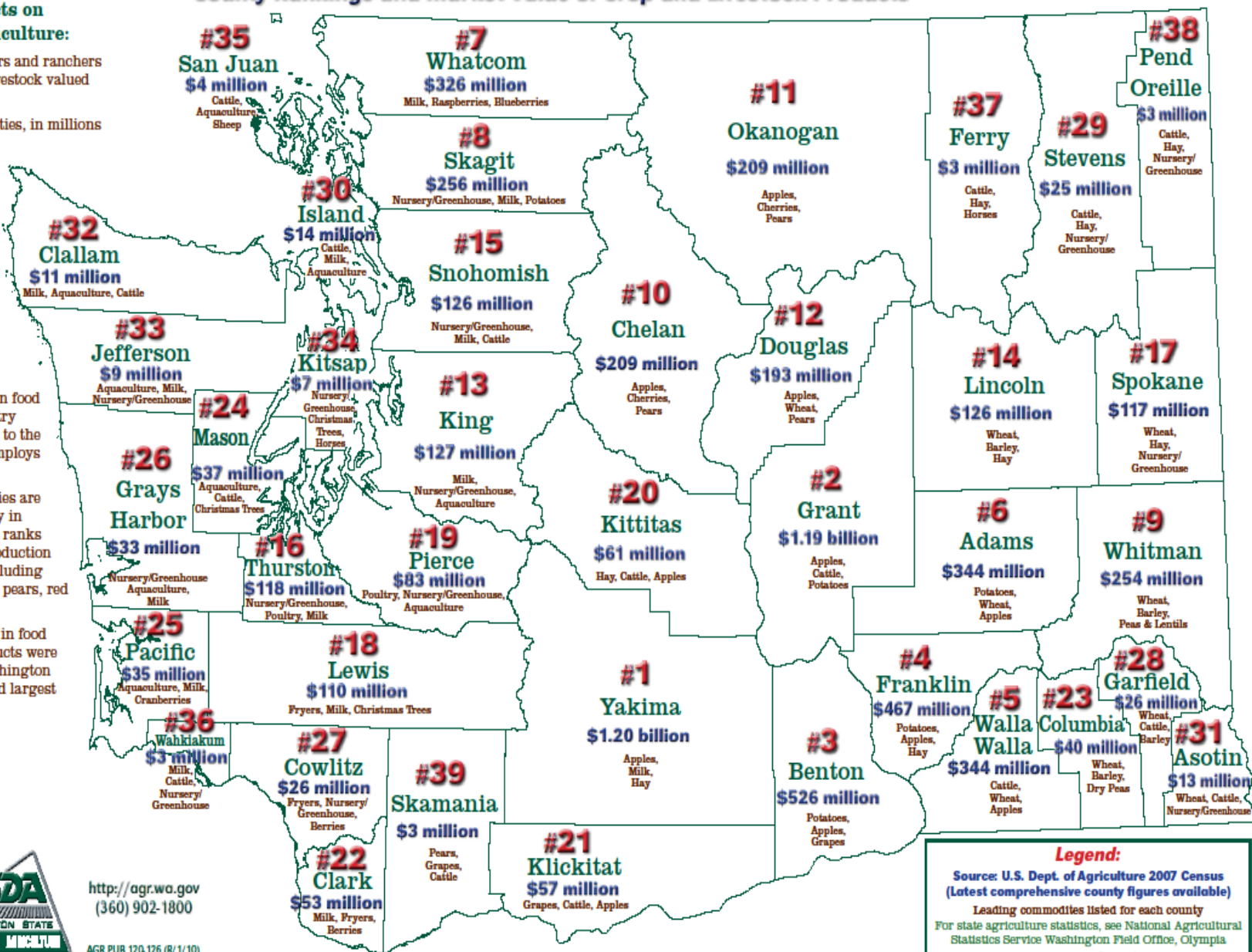
The top 10 commodities, in millions of dollars, were:

Apples.....\$1,283
Milk.....\$1,002
Wheat.....\$745
Potatoes.....\$693
Hay.....\$588
Cattle.....\$496
Nursery/
Greenhouse...\$321
Cherries.....\$297
Hops.....\$253
Grapes.....\$201

The state's \$38 billion food and agriculture industry contributes 12 percent to the state's economy and employs 160,000 people.

Some 300 commodities are produced commercially in Washington. The state ranks first in the U.S. for production of 10 commodities, including apples, sweet cherries, pears, red raspberries and hops.

Nearly \$14.8 billion in food and agricultural products were exported through Washington ports in 2008, the third largest total in the U.S.



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Legend:

Source: U.S. Dept. of Agriculture 2007 Census
(Latest comprehensive county figures available)

Leading commodities listed for each county
For state agriculture statistics, see National Agricultural
Statistics Service Washington Field Office, Olympia
www.nass.usda.gov/wa

Agriculture—A Cornerstone of Washington's Economy

Food Processing Industry Gross Sales and Employment by County

Key economic facts on the food processing industry in Washington state:

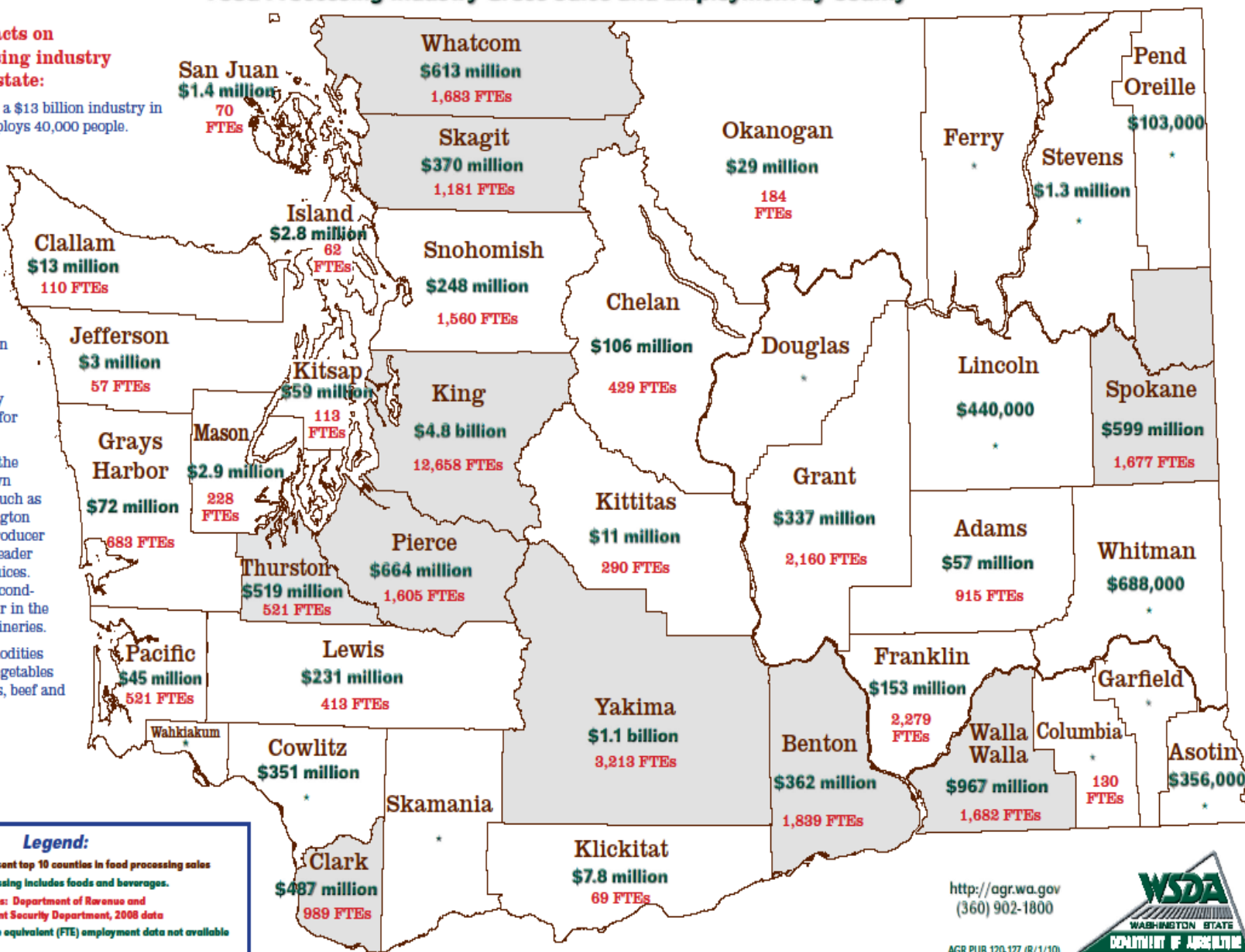
Food processing is a \$13 billion industry in Washington that employs 40,000 people.

The Washington State Department of Agriculture licenses nearly 3,000 food and milk processors, milk producers, food storage warehouses, and custom meat facilities.

Many food crops grown by Washington farmers are sold to independent food processors or used by grower cooperatives for processing.

Washington leads the U.S. in potatoes grown for processed foods such as french fries. Washington is the leading U.S. producer of apple juice and a leader of grape and berry juices. Washington is the second-largest wine producer in the U.S. with over 600 wineries.

Other major commodities processed include: vegetables and fruit, dairy foods, beef and seafood products.



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Aerospace Footprint

- Boeing facilities (Defense, Space, 747 and 787 simulator) designated national significance by Homeland Security
- 109 supply chain companies (machinist, tooling, fabricators)
- Supply chain to global OEM's (Boeing, Airbus, Bombardier, etc.)
- Disruptions would have international implications

OEM: Original Equipment Manufacturers

Supply Chain Subsectors

Subsector	# of Firms
Machining	54
Interiors	18
Engineering & Research	16
Composites/advanced materials	11
Tooling	6
Air framer	5
Aircraft systems (pneumatics, hydraulics)	4
Space	3

Alaska – Washington Ports Gateway

Washington State Ports responsible for 70% of product going into Alaska.

- 100,000 Washington jobs linked to Alaska trade
- \$3.8 billion in goods and services
- Outbound services and goods
- Inbound (seafood, forest and petroleum products)
- Distribution centers in Kent Valley supply crucial products (food products, medical/pharmaceutical and industrial)

FEMA Floodplain Management - Property

Damaged properties that require repairs exceeding 50% of market value in a SFHA must comply with:

- Local floodplain management regulations and NFIP regulations
- Development permits
- Lowest level of the facility above the base flood elevation
- Prohibition of activity that would result in any increase in flooding

SFHA (Special Flood Hazard Area)

Small Business Risk*

- **43% of those businesses impacted by a disaster with no plan never reopen.**
- Of those reopening, only 29% are still operating two years later
- Small Business Profile

88 % of businesses have 50 or fewer employees

11 % are between 51-250 employees

Actions: EMD developed business preparedness , mitigation and continuity training; Commerce Business Recovery Guide with preparedness elements.

Source: Association of Small Business Development Centers

Additional Considerations

- City of Tacoma - drinking water is from Green River
- Covington, Federal Way and Kent – secondary water supply

Questions?

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